

November 17th, Tuesday

13:00 ~ 13:20

Opening Remarks

Session 1. Nano and Optics

13:20 ~ 14:00

Tu-01 : **Semiconductor Hetero-Nanowires on Si for Photonic and Electronic Applications**

(Keynote) Gerhard Abstreiter

TU München

14:00 ~ 14:30

Tu-02 : **Cavity optomechanics: measurement and control of nanomechanical oscillator at the thermal decoherence rate**

(Invited) Tobias Kippenberg

EPFL

14:30 ~ 15:00

Coffee Break

Session 2. New Frontier in Light and Optics

15:00 ~ 15:30

Tu-03 : **Quantum spin Hall effect of light**

(Invited) Franco Nori

RIKEN

15:30 ~ 16:00

Tu-04 : **Parity-time symmetry and exceptional points in optics**

(Invited) Sahin Kaya Ozdemir

Washington University in St. Louis

16:00 ~ 17:40

Poster Session I
(Joint Poster Session with BRL School)

18:00 ~ 19:50

Welcome Reception
(Jointly with BRL-School Farewell Party and Poster-Award Ceremony)

November 18th, Wednesday

Session 3. Nontrivial Excitation and Electron Quantum Optics

9:00 ~ 9:40

We-01 : **Levitons: clean time-resolved electrons for Electron Quantum Optics**

(Keynote) Christian Glattli
CEA Saclay

9:40 ~ 10:00

We-02 : **Temperature and Magnetic Field dependence of Fractional Quasiparticle Creation in a Local Quantum Hall System**

M. Hashisaka, K. Muraki, T. Fujisawa
Tokyo Institute of Technology

10:00 ~ 10:20

We-03 : **Energy distribution in graphene p-n junction in quantum Hall regime**

N. Kumada, F. D. Parmentier, H. Hibino, D. C. Glattli, P. Roulleau
NTT Basic Research Laboratories, CEA Saclay

10:20 ~ 10:50

Coffee Break

Session 4. Mechanical Coupled Systems

10:50 ~ 11:20

We-04 : **Squeezing of quantum noise of motion in a micromechanical resonator**

(Invited) Mika A. Sillanpää
Aalto University

10:50 ~ 11:20

We-05 : **An electromechanical simulator**

Imran Mahboob, Hajime Okamoto and Hiroshi Yamaguchi
NTT Basic Research Laboratories

11:20 ~ 11:40

We-06 : **Electromechanical SiN membrane inside a 3D microwave cavity**

A. Noguchi, R. Yamazaki, M. Ataka, H. Fujita, K. Makise, S. Miki, H. Terai,
Y. Tabuchi, T. Ishikawa, K. Usami, Y. Nakamura
Research Center for Advanced Science and Technology (RCAST), University of Tokyo

12:00 ~ 12:20

We-07 : **All-mechanical four-wave-mixing in membrane-based phonon waveguides**

D. Hatanaka, I. Mahboob, K. Onomitsu, H. Yamaguchi
NTT Basic Research Laboratories

12:20 ~ 13:50

Lunch

Session 5. Nanoequilibrium Transport and Spin-Related Phenomena

13:50~14:20

We-08 : **Universality of Nonequilibrium Behavior in Strongly Correlated Quantum Liquids**

(Invited) Kensuke Kobayashi

Osaka University

14:20~14:40

We-09 : **Spin-orbit induced spin polarization and detection by magnetic focusing in InGaAs quantum point contacts**

Makoto Kohda, Takanori Okayasu and Junsaku Nitta

Tohoku University

14:40~15:00

We-10 : **Magnetization of a quantum point contact measured by resistively-detected nuclear magnetic resonance**

Minoru Kawamura, Keiji Ono, Peter Stano, Kimitoshi Kono, Tomosuke Aono

CEMS, RIKEN

15:00~15:20

We-11 : **Spin-selective electron quantum transport in non-magnetic MgZnO/ZnO-heterostructures**

D. Maryenko, J. Falson, M. S. Bahramy, I. A. Dmitriev, Y. Kozuka, A. Tsukazaki,

and M. Kawasaki

CEMS, RIKEN

15:20~15:50

Coffee Break

Session 6. Quantum Transport in Topological Systems

15:50~16:20

We-12 : **Quantum Transport of Spin-helical Dirac Fermions in Topological Insulators**

(Invited) Yong P. Chen

Purdue University

16:20~16:50

We-13 : **Precise Quantization of the Anomalous Hall Effect near Zero Magnetic Field**

(Invited) David Goldhaber-Gordon

Stanford University

16:50~17:10

We-14 : **Quantum Hall Effect in 3D topological insulator $(\text{Bi}_{1-x}\text{Sb}_x)_2\text{Te}_3$**

Ryutaro Yoshimi, A. Tsukazaki, M. Mogi, K. Yasuda, Y. Kozuka, J. Falson,

J. G. Checkelsky, K. S. Takahashi, N. Nagaosa, M. Kawasaki and Y. Tokura

University of Tokyo

17:10~17:30

We-15 : **Zero-energy Andreev bound states in a HgTe topological Josephson junction**

R.S. Deacon, J. Wiedenmann, E. Bocquillon, S. Hartinger, O. Herrmann, T.M. Klapwijk, L. Maier

C. Ames, C. Brüne, C. Gould, A. Oiwa, K. Ishibashi, S. Tarucha, H. Buhmann, L.W. Molenkamp

RIKEN

17:30~17:50

We-16 : **Single-Edge Transport in an InAs/GaSb Two-Dimensional Topological Insulator**

F. Couedo, H. Irie, K. Suzuki, K. Onomitsu, K. Muraki

NTT Basic Research Laboratories

17:50~19:30

Poster Session II

November 19th, Thursday

Session 7. Optical Manipulation and Characterization of Spin

9:00 ~ 9:30

Th-01 : **Locally resolved dynamics of spin-orbit coupled electron spins in GaAs quantum structures**

(Invited) Gian Salis

IBM Research

9:30 ~ 9:50

Th-02 : **Gate-controlled spin coherence of drifting electrons in GaAs quantum wells**

Y. Kunihashi, H. Sanada, H. Gotoh, K. Onomitsu, M. Kohda, J. Nitta, T. Sogawa

NTT Basic Research Laboratories

9:50 ~ 10:20

Th-03 : **Nanosecond spin relaxation and spin coherence of electrons in monolayer transition metal dichalcogenides**

(Invited) Luyi Yang

National High Magnetic Field Laboratory

10:20 ~ 10:50

Coffee Break

Session 8. Superconducting Quantum Devices

10:50 ~ 11:20

Th-04 : **Magnetic resonance at the quantum limit**

(Invited) Yuimaru Kubo

CEA Saclay

11:20 ~ 11:40

Th-05 : **Itinerant microwave photon detection using an impedance-matched Λ system**

K. Inomata, Z. R. Lin, K. Koshino, J. S. Tsai, T. Yamamoto, Y. Nakamura

CEMS, RIKEN

11:40 ~ 12:00

Th-06 : **Visibility improvement on a superconducting flux qubit measurement by a multi readout method**

K. Kakuyanagi, Y. Matsuzaki, K. Semba, H. Nakano, H. Yamaguchi, S. Saito

NTT Basic Research Laboratories

12:00 ~ 12:20

Th-07 : **Memcapacitors and meminductors based on superconducting qubits**

Y. V. Pershin, S. N. Shevchenko, F. Nori

University of South Carolina

CEMS, RIKEN

12:20 ~ 12:30

Symposium Photo Session

12:30 ~ 14:00

Lunch

Session 9. On-Demand Single Electron Source

14:00 ~ 14:30

Th-08 : **Electron quantum optics with hot single electrons**

(Invited) Masaya Kataoka
National Physical Laboratory

14:30 ~ 15:00

Th-09 : **Validation of a single-electron based quantized current source**

(Invited) Frank Hohls
Physikalisch-Technische Bundesanstalt

15:00 ~ 15:20

Th-10 : **High-accuracy 2-GHz single-electron pumping in silicon**

G. Yamahata, S. P. Giblin, M. Kataoka, T. Karasawa, and A. Fujiwara
NTT Basic Research Laboratories

15:20 ~ 15:50

Coffee Break

Session 10. Fabrication and Device Physics and of Nanostructures

15:50 ~ 16:20

Th-11 : **III-V Planar Nanowire Growth and High Speed Electronics**

(Invited) Xiuling Li
University of Illinois

15:50 ~ 16:20

Th-12 : **GaAs-AlGaAs core-shell Nanowire Lasers on Silicon**

B. Mayer, T. Stettner, L. Janker, B. Loitsch, J. Treu, G. Abstreiter, G. Koblmüller and J. J. Finley
Walter Schottky Institut, TU München

16:20 ~ 16:40

Th-13 : **Bridging the gap between the nanometer-scale bottom-up and micrometer-scale top-down approaches through a self-assembly process**

Guoqiang Zhang, Masato Takiguchi, Kouta Tateno, Hideki Gotoh
NTT Basic Research Laboratories

16:40 ~ 17:00

Th-14 : **Wavelength-tunable entangled photons from silicon-integrated III-V quantum dots**

Yan Chen, Jiayang Zhang, Michael Zopf, Kyubong Jung, Yang Zhang, Robert Keil, Fei Ding, and Oliver G. Schmidt
Institute for Integrative Nanosciences, IFW Dresden

17:20 ~ 18:00

Bus Transfer

18:00 ~ 20:00

Banquet

November 20th, Friday

Session 11. Hybrid Quantum System

9:00 ~ 9:40

Fr-01 : Interaction between sound and a superconducting qubit

(Keynote) Per Delsing

Chalmers University of Technology

9:40 ~ 10:10

Fr-02 : Coherent coupling between a ferromagnetic magnon and a superconducting qubit

(Invited) Yutaka Tabuchi

University of Tokyo

10:10 ~ 10:30

Fr-03 : Improving the coherence time of a quantum system via a coupling with an unstable system

Y. Matsuzaki, X. Zhu, K. Kakuyanagi, H. Toida, T. Shimooka, N. Mizuochi, K. Nemoto, K. Semba,
W. J. Munro, H. Yamaguchi, and S. Saito

NTT Basic Research Laboratories

10:30 ~ 11:00

Coffee Break

Session 12. Nanophotonics

11:00 ~ 11:30

Fr-04 : Diamond Nanophotonics and Optomechanics

(Invited) Marko Lončar

Harvard University

11:30 ~ 11:50

Fr-05 : All-optical formation of coherent dark states of Silicon-Vacancy spins in diamond

Benjamin Pingault, Jonas N. Becker, Carsten H. H. Schulte, Carsten Arend, Christian Hepp,
Tillmann Godde, Alexander I. Tartakovskii, Matthew Markham, Christoph Becher, Mete Atatüre
Cavendish Laboratory, University of Cambridge

11:50 ~ 12:10

Fr-06 : Ultrafast electronic readout of diamond nitrogen-vacancy centers coupled to graphene

Andreas Brenneis, Louis Gaudreau, Max Seifert, Helmut Karl, Martin S. Brandt, Hans Huebl, Jose A.
Jose A. Garrido, Frank H. L. Koppens, and Alexander W. Holleitner
Walter Schottky Institut, TU München

12:10 ~ 12:30

Fr-07 : Fast phase control of the single nuclear spin by electric field

T. Shimo-Oka, T. Mori, Y. Suzuki, N. Mizuochi

Osaka University

12:30 ~ 14:00

Lunch

Session 13. Spin Qubits and Spin Readout

14:00 ~ 14:30

Fr-08 : **Spin-based Quantum Computing in Silicon**

(Invited) Andrew Dzurak
University of New South Wales

14:30 ~ 14:50

Fr-09 : **Exploiting the slow dynamics of nuclear spins to enhance the coherence time of spin qubits in GaAs**

M. R. Delbecq, T. Nakajima, P. Stano, T. Otsuka, S. Amaha, J. Yoneda, K. Takeda, G. Allison, A. Ludwig, A. D. Wieck and S. Tarucha
CEMS, RIKEN

14:50 ~ 15:10

Fr-10 : **High-fidelity initialization of long-lived quantum dot hole spin qubits**

L. M. P. Martins, F. Liu, A. J. Brash, J. H. Quilter, A. J. Ramsay, M. S. Skolnick, and A. M. Fox
University of Sheffield

15:10 ~ 15:30

Fr-11 : **Mixing of crystal field levels of individual erbium ions in silicon**

G.G. de Boo, Q. Zhang, C. Yin, M. Rancic, B.C. Johnson, J.C. McCallum, M.J. Sellars, and S. Rogge
CQC2T, University of New South Wales

15:30 ~ 16:00

Fr-12 : **Photon-electron spin coupling via angular momentum conversion in a gate-defined GaAs double quantum dot**

(Invited) Akira Oiwa
Osaka Univeristy

16:00 ~ 16:20

Closing

- PTu01** **Design of single-electron hysteretic inverter**
Tran T. T. Huong and Y. Mizugaki
The University of Electro-Communications, CREST-JST
- PTu03 :** **Thermal noise suppression by feedback control to single-electron motion**
K. Chida, K. Nishiguchi, G. Yamahata, H. Tanaka, and A. Fujiwara
NTT Basic Research Laboratories
- PTu04 :** **Full-counting statistics of information content**
Yasuhiro Utsumi
Mie University
- PTu05 :** **Distribution of energy dissipated by a driven two-level system**
Philip Wolffarth, Alexander Shnirman, Yasuhiro Utsumi
Karlsruhe Institute of Technology
- PTu06 :** **Effect of electrode-geometries on the transport properties of InAs self-assembled quantum dots**
H. Kiyama, R. Shikishima, S. Baba, T. Hirayama, N. Nagai, K. Hirakawa, S. Tarucha and A. Oiwa
ISIR, Osaka University
- PTu07 :** **Measurement of spin-orbit interactions in a quantum dot**
P. Stano, O. Malkoc, and D. Loss
CEMS, RIKEN
- PTu08 :** **Quantum Entanglement Conservation through Coherent Quantum State Transfer from Single Photon Polarization to Single Electron Spin**
K. Kuroyama, M.Larsson, T.Fujita, S.Matsuo, S.R.Valentin, A.Ludwig, A.D.Wieck, A.Oiwa and S.Tarucha
University of Tokyo
- PTu10 :** **Bistable Photon Emission in Hybrid-QED**
Neill Lambert, Franco Nori and Christian Flindt
CEMS, RIKEN
- PTu11 :** **Circuit-QED-based quantum architectures relying on longitudinal interactions**
P.-M. Billangeon, Y. Nakamura
RCAST - University of Tokyo, CEMS RIKEN
- PTu12 :** **Qubit-oscillator systems in the ultrastrong-coupling regime**
F. Yoshihara, T. Fuse, K. Kakuyanagi, S. Ashhab, and K. Semba
NICT
- PTu13 :** **Spin and Multipolar Squeezing in Collective Spin Systems**
Emi Yukawa and Kae Nemoto
National Institute of Informatics
- PTu14 :** **Preparation of flux qubit and NV⁻ hybrid system for long-lived quantum memory**
Yarui Zheng, Yulin Wu, Hui Deng, Xinyu Pan, Dongning Zheng and Xiaobo Zhu
Beijing National Laboratory for Condensed Matter Physics
- PTu15 :** **Theory of microwave single-photon detection using an impedance-matched Λ system**
K. Koshino, K. Inomata, Z. R. Lin, T. Yamamoto, Y. Nakamura
Tokyo M&D University
- PTu16 :** **Electron paramagnetic resonance spectroscopy using a SQUID magnetometer**
H. Toida, Y. Matsuzaki, K. Kakuyanagi, X. Zhu, K. Nemoto, W. J. Munro, H. Yamaguchi, S. Saito
NTT Basic Research Laboratories

- PTu18 :** **Nonlinear Electromagnetic Response of Superconducting Quantum Metamaterials**
Shiro Kawabata, Hidehiro Asai, Sergey Savel'ev, Alexandre Zagoskin
AIST
- PTu19 :** **Observation of Andreev bound states in $\text{In}_{0.75}\text{Ga}_{0.25}\text{As}$ two-dimensional electron gas coupled to Nb electrode**
H. Irie, C. Todt, N. Kumada, Y. Harada, H. Sugiyama, T. Akazaki, K. Muraki
NTT Basic Research Laboratories
- PTu21 :** **Observation of tunable supercurrent in an InAs-nanowire based Josephson junction device**
K. Takase, Y. Ashikawa, G. Zhang, K. Tateno and S. Sasaki
NTT Basic Research Laboratories
- PTu22 :** **Correlation of microstructure and electronic transport properties in intrinsic InAs and δ -doped GaAs/AlGaAs core-shell nanowires**
J. Becker, S. Morkötter, J. Treu, S. Hertenberger, M. Bichler, G. Abstreiter, J. J. Finley, G. Koblmüller
Walter Schottky Institute, TU München

Joint Poster Session with the 7th NTT-BRL School

- PTu24/S01 : In-situ Laser Annealing of Self-Assembled Quantum Dots as a Tuning Knob for Two-Photon Interference**
Michael Zopf, Dr. Fei Ding and Prof. Dr. Oliver G. Schmidt
Institute for Integrative Nanosciences, IFW Dresden
- PTu25/S02 : A 17 GHz Molecular Rectifier**
J. Trasobares, D. Vuillaume, D. Théron and N. Clément
IEMN-CNRS
- PTu26/S03 : →Upgraded to Oral Presentation Fr-10**
High-fidelity initialization of long-lived quantum dot hole spin qubits
L. M. P. Martins, F. Liu, A. J. Brash, J. H. Quilter, A. J. Ramsay, M. S. Skolnick, and A. M. Fox
University of Sheffield
- PTu27/S04 : Measurement of electron velocity using time of flight measurements of single – electron wavepackets in quantum hall edge states**
N. Johnson, P. See, C. Emary, J.P. Griffiths, G.A.C. Jones, I. Farrer, D.A. Ritchie, M. Pepper, T.J.B.M. Janssen and M. Kataoka
National Physical Laboratory, University College London
- PTu28/S05 : Electron relaxation time in dynamic quantum dots**
P. Sahafi, C. Emary, S.P. Giblin, J. Fletcher, P. See, J. Griffiths, C. Jones, I. Farrer, D.A. Ritchie, V. Antonov and M. Kataoka
National Physical laboratory, University of London
- PTu29/S06 : Optical properties of plasmonic nanostructures and their coupling to proximal active materials**
M. Blauth, A. Regler, K. Schraml, J. Harms, J. Bartl, G. Glashagen, J. J. Finley and M. Kaniber
Walter Schottky Institut, TU München
- PTu30/S07 : Towards the Strong-Coupling Regime in Optomechanics with Microwave Cavities**
Shun Yanai, Olga Shevchuk, Sal Bosman, Mingyun Yuan, Vibhor Singh, Yaroslav Blanter, Gary Steele
Delft University of Technology
- PTu31/S08 : Molecularly defined photodetectors in FeCl₃-intercalated graphene**
Adolfo De Sanctis, Dominique J. Wehenkel, Gareth F. Jones, Thomas H. Bointon, Monica F. Craciun and Saverio Russo
University of Exeter
- PTu32/S09 : Resonance-mode imaging of few-layer graphene nanodrums**
D. Davidovikj, J.J. Slim, H.S.J. van der Zant, P.G. Steeneken, W.J. Venstra
Kavli Institute of Nanoscience, TU Delft
- PTu33/S10 : Resonant frequency study for evaluation of changes in a nanoelectromechanical switch contact**
J. Kosmaka, R. Meija, L. Jasulaneca, J. D. Holmes, J. Andzane and D. Erts
Institute of Chemical Physics, University of Latvia
- PTu35/S12 : Fabrication and Characterisation of Thin-Film Superconducting Nanowire Superinductors for Novel Quantum Devices**
D. Niepce, J. Bylander and P. Delsing
Chalmers University of Technology
- PTu36/S13 : Quantum non-demolition detection of an itinerant single microwave photon using a superconducting qubit**
S. Kono, Y. Masuyama, T. Ishikawa, Y. Tabuchi, R. Yamazaki, K. Usami, and Y. Nakamura
RCAST, University of Tokyo

- S14 :** **Directional and polarized emission from nanowires**
D. van Dam, D.R. Abujetas, R. Paniagua-Domínguez, J. A. Sánchez-Gil, J. E. M. Haverkort, E. P. A. M. Bakkers, and J. Gómez Rivas
Eindhoven University of Technology
- S15 :** **Enhancement-mode AlGaIn/GaN HEMTs Using Low Energy Fluorine Ion Implantation**
C. H. Wu, P. C. Han, and E. Y. Chang
National Chiao Tung University
- S16 :** **Ge-Catalyzed GaN Nanowires Made Electro-Photonic Devices For Gas Sensing Purpose.**
U. Saleem, W. Hong
 CNRS International – NTU – Thales Research Alliance
 Nanyang Technological University
- S18 :** **Mixing of crystal field levels of individual erbium ions in silicon**
Gabriele de Boo, Qi Zhang, Chunming Yin, Milos Rancic, Brett Johnson, Jeffrey C. McCallum, Matthew J. Sellars, and Sven Rogge
CQC2T, University of New South Wales, Sydney
- S19 :** **GaAs-AlGaAs core-shell Nanowire Lasers on Silicon**
B. Mayer, T. Stettner, L. Janker, B. Loitsch, J. Treu, G. Abstreiter, G. Koblmüller, J. J. Finley
Walter Schottky Institut, TU München
- S20 :** **Wavelength-tunable entangled photons from silicon-integrated III-V quantum dots**
Yan Chen, Jiayang Zhang, Michael Zopf, Kyubong Jung, Yang Zhang, Robert Keil, Fei Ding, and Oliver G. Schmidt
IFW Dresden, Germany
- S21 :** **All-semiconductor plasmonic gratings for mid-infrared biosensing**
F. B. Barho, M.-J. Milla Rodrigo, F. Gonzalez-Posada Florès, L. Cerutti, J.-B. Rodriguez, T. Taliercio, E. Tournié
University of Montpellier
- S23 :** **Cylindrical Talbot Effect in Tapered MMIs**
P. Samadian, T. J. Hall
University of Ottawa
- S24 :** **Laser Spectroscopy of Muonic Atoms and the Proton Radius Puzzle**
Marc Diepold and the CREMA collaboration
Max-Planck-Institute of Quantum Optics
- S25 :** **Precise measurement of fine-structure constant variation by Sr/Hg lattice clock comparison**
Y. Sato, T. Pruttivarasin, N. Ohmae, H. Katori
University of Tokyo
- S26 :** **Spectroscopic Study of Graphene Nanomechanical Oscillators coupled to a Coplanar Waveguide**
Joshua Condicion Esmenda, ChiiDong Chen
National Tsing Hua University
- S27 :** **All-optical formation of coherent dark states of Silicon-Vacancy spins in diamond**
Benjamin Pingault, Jonas N. Becker, Carsten H. H. Schulte, Carsten Arend, Christian Hepp, Tillmann Godde, Alexander I. Tartakovskii, Matthew Markham, Christoph Becher, Mete Atatüre
Cavendish Laboratory, University of Cambridge
- S28 :** **Coupling of a locally implanted rare-earth ion ensemble to a superconducting micro-resonator**
I. Wisby, S. E. de Graaf, R. Gwilliam, A. Adamyan, S. E. Kubatkin, P. J. Meeson, A. Ya. Tzalenchuk, T. Lindström
National Physical Laboratory
- S29 :** **Universal Linear Optics**
C. Harrold, J. Carolan, C. Sparrow, E. Martin-Lopez, N. J. Russell, J. W. Silverstone, P. J. Shadbolt, N. Matsuda, M. Oguma, M. Itoh, G. D. Marshall, M. G. Thompson, J. C. F. Matthews, T. Hashimoto, J. L. O'Brien, A. Laing
H. H. Wills Physics Laboratory

- S30 :** **Hybrid entanglement of light**
Hanna Le Jeannic, Olivier Morin, Kun Huang, Jianli Liu, Claude Fabre, Julien Laurat
UPMC-Sorbonne Universités, CNRS, ENS-PSL Research University
- S31 :** **Broadband Low-Noise Raman Quantum Optical Memory in Neutral NV Centers**
C. Weinzetl, E. Poem, J. Klatzow, J. Nunn, I. A. Walmsley
University of Oxford
- S32 :** **Optical quantum-metrology-based multi-parameter estimation: theory and practice**
M. Szczykulska, M. D. Vidrighin, T. Baumgratz, M. Karpinski, A. Datta, B. J. Smith, I. A. Walmsley
University of Oxford
- S33 :** **Ultrafast electronic read-out of NV centers coupled to graphene**
Brenneis, A., Gaudreau, L., Seifert, M., Karl, H., Brandt, M.S., Huebl, H.(2,5), Garrido, J.A., Koppens, F.H.L., Holleitner, A.W.
Walter Schottky Institut, TU München

Poster Session II (November 18th, Wednesday)

- PWe02 :** **Frequency stabilization in a collinear 2f-to-3f self-referencing interferometer with a dual-pitch PPLN ridge waveguide**
K. Hitachi, A. Ishizawa, O. Tadanaga, T. Nishikawa,
H. Mashiko, T. Sogawa, and H. Gotoh
NTT Basic Research Laboratories
- PWe03 :** **Control of energy transfer up-conversion by photonic band gap in Er₂O₃ epitaxial layers**
T. Tawara, A. Llenas, T. McManus, H. Omi, E. Kuramochi, S. Adachi and H. Gotoh
NTT Basic Research Laboratories
- PWe05 :** **Observation of hole-spin superposition in GaAs quantum well by time-resolved photoluminescence measurements**
Tetsu Ito, Hideki Gotoh, Masao Ichida, and Hiroaki Ando
Shizuoka University
- PWe07 :** **Quantum walks of polaritons in the Jaynes-Cummings-Hubbard model**
M. Yamashita, K. Noda, K. Inaba
NTT Basic Research Laboratories
- PWe08 :** **Spin-1 Quantum walks**
D. Morita, T. Kubo, Y. Tokura, M. Yamashita
University of Tsukuba, NTT Basic Research Laboratories
- PWe09 :** **Achievable Fault-Tolerant Spin Measurements in Diamond**
Michael Hanks, W.J. Munro, Kae Nemoto
Sokendai, National Institute of Informatics
- PWe10 :** **Entanglement dynamics in simultaneously coupling system**
T. Furuya, Y. Tokura
University of Tsukuba
- PWe11 :** **Quantum optics with giant artificial atoms**
A. F. Kockum, L. Guo, M. Pletyukhov, A. L. Grimsmo, S. R. Sathyamoorthy, A. Blais, P. Delsing, F. Nori, G. Johansson
CEMS, RIKEN
- PWe12 :** **Long-distance entanglement of spin qubits via quantum Hall edge states**
Guang Yang, Chen-Hsuan Hsu, Peter Stano, Jelena Klinovaja, Daniel Loss
CEMS, RIKEN
- PWe13 :** **Edge magnetoplasmons in InAs quantum wells investigated by time-domain measurements**
T. Ota, N. Kumada, K. Suzuki, K. Onomitsu, and K. Muraki
NTT Basic Research Laboratories
- PWe15 :** **Gate control of semimetal-topological insulator transition in an InAs/GaSb heterostructure**
K. Suzuki, K. Onomitsu, K. Muraki
NTT Basic Research Laboratories
- PWe16 :** **Topological transitions in spin interferometers**
Henri Saarikoski, J. Enrique Vázquez-Lozano, José Pablo Baltanas, Fumiya Nagasawa, Junsaku Nitta, and Diego Frustaglia
CEMS, RIKEN
- PWe17 :** **Bias voltage dependence of spin polarization and lifetime in the perpendicularly polarized spin injector / GaAs system**
R. Ohsugi, Y. Kunihashi, M. Kohda, Y. Kunihashi, H. Sanada, H. Gotoh, T. Sogawa, and J. Nitta
Tohoku University
- PWe18 :** **Epitaxial Graphene Technology for Quantum Metrology**
T. Yager, A. Lartsev, R. Yakimova, V. Panchal, O. Kazakova, A. Tzalenchuk, K. Ho Kim, Y. W. Park, S. Lara-Avila, S. Kubatkin
Chalmers University

- PWe19 :** **Characteristics of MoS₂ dual-gate FET with ionic-liquid top gating**
Y. Shimazu, M. Tashiro, S. Sonobe, M. Takahashi
Yokohama National University
- PWe20 :** **Transport properties of a Ag /pentacene / Ag junction**
T. Hayashi, T. Yokota, R. Shidachi, A. Fujiwara and T. Someya
NTT Basic Research Laboratories
- PWe21 :** **Single-molecule photon emitter in tunneling junctions**
Hiroshi Imada, Miyabi Imai-Imada, Shota Kawahara, Kensuke Kimura, Kuniyuki Miwa and Yousoo Kim
SISL RIKEN
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